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PATENT

Attorney's Docket No. 4084-2163

**REISSUE APPLICATION DECLARATION and POWER OF ATTORNEY
(INVENTORS)**

The original patent was filed on April 10, 1998 as Application Serial No. 09/058,183 and was issued July 13, 1999 as U.S. Patent No. 5,921,998.

DECLARATION BY THE INVENTORS

Inventors: Yasuo Tano, Motohiro Kamei, Masato Ooji, Yoshihiro Saitou, Park In Won, and John M. Lewis

As a below named inventor, I hereby declare that:

My residence, post office address, citizenship are stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed above) or an original, first and joint inventor along with those listed above (if plural names are listed above) of the subject matter which is claimed in letters patent number 5, 921,998, granted on July 13, 1999, and for which invention I solicit a reissue patent on the invention entitled: *MEMBRANE ERASER*

the specification of which is attached hereto.

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56.

PRIORITY CLAIM

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

[Complete (d) or (e)]

(d) X no such applications have been filed.

(e) such applications have been filed as follows.

EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION

Country	Application No.	Date of filing (day, month, year)	Date of issue (day, month, year)	Priority Claimed
				___ YES NO ___
				___ YES NO ___

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)

I hereby claim the benefit under Title 35, United States code, § 119(e) of any United States provisional application(s) listed below:

(Provisional Application Number)	(Filing Date)
(Provisional Application Number)	(Filing Date)
(Provisional Application Number)	(Filing Date)

CONTINUATION-IN-PART

(Complete this part only if this is a continuation-in-part application)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.)	(Filing Date)	(Status)	(Patent, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status)	(Patent, pending, abandoned)

STATEMENT OF INOPERATIVENESS OR INVALIDITY OF ORIGINAL PATENT

Applicant verily believes the original patent is wholly or partly inoperative or invalid, by reason of a defective specification or drawing. The defects in the original patent which applicant believes are overcome by the amendments made in the accompanying amended copy of the specification are as follows:

- 1) On page 1, in line 18 through page 2, line 8, the specification is ambiguous with respect to the field of the art to which the invention pertains. Applicant seeks by this reissue to amend this language to resolve these ambiguities created by various grammatical errors.
- 2) On page 2, in lines 27-35, the specification is ambiguous in providing a concise description of the invention. Moreover, the specification fails to properly set forth the invention as it is claimed. The various grammatical errors contained in this portion of the specification do not describe the invention in a clear concise way as required to properly apprise the public and more specifically those interested in the particular art to which the invention relates. See, MPEP § 608.01(d). Applicant seeks by this reissue application to amend the subject language of the "Summary of the Invention" to more concisely describe the invention as it is claimed.
- 3) On page 4, in lines 17 -31, the specification is ambiguous in providing a description of the preferred embodiment of the treatment tool. More specifically, the specification states "an elastic body 3 fitted along a direction toward a front end of the rod-shaped body to the front and side of the body 2." The general use of the terms, "front end of the rod-shaped body" and "front end side of the body" is indefinite and produces ambiguity when describing the cooperative relationship between the elastic body and the rod-shaped body. Applicant seeks by this reissue application to amend this language in the specification to provide a more definitive description of the parts comprising the ophthalmic treatment tool to meet the requirements of best mode and enablement.
- 4) On page 5, in lines 12-29, the specification is ambiguous in providing a description of the grip. Applicant seeks by this reissue application to amend the subject language in the specification to more properly describe the grip to meet the requirements of best mode and enablement.
- 5) On page 5, in line 30 through page 6, line 9, the specification is ambiguous in providing a description of the rod-shaped body. More specifically, on page 5, in lines 30-31, the description of the rod-shaped body and its relationship to the grip is not clear. Applicant seeks by this reissue application to amend this section of the specification to more accurately describe the rod-shaped body and its cooperative relationship with the grip. Moreover, applicant seeks by this reissue application to amend the specification to meet the requirements of best mode and enablement.
- 6) On page 6, in lines 10-25, the specification is ambiguous in providing a description of the elastic body. More specifically, this portion of the specification fails to adequately describe the cooperative relationship between the elastic body and the slender line portion of the rod-shaped body. In order to clarify the invention with respect to the position of the slender line portion on the rod-shaped body and the manner in which the elastic body is coupled to fit along the slender line portion, additional features of the elastic body and slender line portion have been described. In order to clarify the construction of the rod-shaped body, additional reference numerals have been used to indicate the opposite first and second ends of the rod-shaped body. Reference numerals have been added to indicate features of the elastic body where a tube-like opening is shown receiving the slender line portion of the rod-shaped body. This section of the specification has been amended to resolve ambiguity in the description of the cooperative

relationship of the rod-shaped body and the elastic body. Moreover, applicant seeks by this reissue application to amend the specification to meet the requirements of best mode and enablement.

7) On page 6, line 34 through page 7, line 12, the specification is ambiguous in providing a description of the flexible nature of the elastic body and the relationship of the position of the slender line portion of the rod shaped body in the tube of the elastic body and the tapered tip of the elastic body. Applicant seeks by this reissue application to amend this section of the specification to remove the ambiguity and ensure that the specification meets the requirements of best mode and enablement.

8) On page 7, in lines 13-26, the specification is ambiguous in providing a description of the bevel shape of the tip of the elastic body. Applicant seeks by this reissue application to amend the language of this section of the specification to remove the ambiguity and ensure that the specification meets the requirements of best mode and enablement.

9) On page 8, in line 13 through page 9, line 16, the specification is ambiguous in providing a description of the manner in which the fine grains are bonded to the elastic body. Applicant seeks by this reissue application to amend this section of the specification to remove the ambiguity and to clarify the manner in which the fine grains are bonded to the elastic body so that the specification meets the requirements of best mode and enablement.

10) Figure 1c of the original patent inaccurately shows the range in which the hard, inorganic fine-grains are deposited on the tip of the elastic body to be from 1 mm to 2 mm. However, claim 1 of the original patent recites the range as being from 0.5 mm to 3.0 mm. Applicant seeks by this reissue application, to remove this inaccuracy by amending claim 1 as set forth below or, alternatively, by amending Figure 1c of the drawings to show the claimed range of 0.5 mm to 3.0 mm.

Applicant verily believes the original patent is wholly or partly inoperative or invalid, by reason of the patentee claiming more or less than the patentee had a right to claim in the patent. The defects in the original patent which applicant believes are overcome by amendments made in the accompanied amended copy of the specification are as follows:

11) In claim 1, in column 6, in lines 5-8 of the original patent, a rod-shaped body and an elastic body are recited as follows:

a rod-shaped body attached to one end of said grip
portion;
an elastic body fitted along a direction toward a front
end of said rod-shaped body to the front end side thereof and
having a hollow tapered front tip.

This recitation fails to properly establish the cooperative relationship between the rod-shaped body and the elastic body. Moreover the language used in this recitation is unclear and may be viewed as a violation of 35 U.S.C. § 112 second paragraph for failure to particularly point out and distinctly claim subject matter which the applicant regards as his invention. Thus, the applicant wishes to amend this portion of claim 1 to read as follows to remove the ambiguity:

a rod-shaped body having opposite first and second ends, said
first end being attached to said grip portion, said second end extending
away from said grip portion;

an elastic body having opposite proximal and distal ends and a hollow interior, said hollow interior at said proximal end receiving said second end of said rod-shaped body, said distal end having a tapered tip extending away from said rod-shaped body.

As amended, the descriptions of the rod-shaped body and the elastic body more precisely claim the invention. Moreover, the added limitations of the hollow interior of the elastic body receiving the second end of the rod-shaped body narrow the scope of the original claim 1. Applicant seeks by this reissue application to amend claim 1 to thereby eliminate the aforementioned defects.

12) In claim 1, in column 6, in lines 10-13 of the original patent, a plurality of hard, inorganic fine-grains is recited as follows:

a plurality of hard, inorganic fine-grains fixed on said tapered front tip of said elastic body wherein said grains are located in a range of 0.5 mm to 3.0 mm from an end portion of said front tip for removal of membrane tissue on a retina of an individual.

This recitation for the inorganic fine-grains contains unnecessary and overly restrictive limitations. During the prosecution of the original patent, claim 1 was rejected as being anticipated by the U.S. Patent of Shimizu (U.S. Pat. No. 3,809,101). The Shimizu reference pertains to a nail file, and more specifically to an improvement for a nail file, where an elastic cushioning layer is secured between an abrasive holding member and an abrasive sheet.

In order to distinguish the nail file shown in Shimizu from the invention of the applicant, claim 1 was amended by adding limitations, as follows, with the additions shown underlined and the deletions in brackets:

an elastic body fitted along a directional toward a front end of said rod-shaped body to the front end side thereof and having a hollowed tapered front tip; and

a plurality of hard, inorganic fine-grains fixed on [a] said tapered front tip of said elastic body wherein said grains are located in a range of 0.5 mm to 3.0 mm from an end portion of said front tip for removal of membrane tissue on a retina of an individual.

Considering that claim 1 was amended with the very restrictive limitation of the range in which fine-grains are fixed on the tip of the elastic body to distinguish the ophthalmic membrane eraser of the invention from the nail file disclosed by Shimizu, it is respectfully submitted that the party who amended claim 1 in this manner did not fully appreciate the scope of the invention. Furthermore, with respect to the limitation reciting the location of the fine grains, in column 4, in lines 13-16, the original patent specification states that the range of the grains shown in dimension (x) has been experimentally found to be preferable in the range of 0.5 mm to 3.0 mm. In column 4, in lines 17-20, the original specification states that the measurements described in the figures are not intended to limit the present invention but allow one skilled in the art to more properly understand the invention.

It is respectfully submitted that incorporation of this limitation into claim 1 was unnecessary to distinguish the invention of the applicant from the nail file disclosed in Shimizu. The preamble of claim 1 recites a membrane eraser, and the last clause of claim 1 recites inorganic fine-grains fixed on said

tapered distal tip for removal of membrane tissue on a retina of an individual. These limitations alone significantly distinguish the ophthalmic membrane eraser of the applicant's invention from the nail file disclosed in Shimizu which is not analogous to the membrane eraser claimed.

Applicant seeks by this reissue application to amend such language of claim 1 to read as follows:

a plurality of hard, inorganic fine-grains fixed on said tapered tip of said elastic body, said fine-grains configured for removal of membrane tissue on a retina of an individual.

The amendments to claim 1 retain limitations that distinguish the invention of the applicant from the prior art nail file of Shimizu. Moreover, the amendments of claim 1 provide clearer antecedent basis and more definite cooperative relationship between the inorganic fine-grains and the elastic body. Thus, the amendment to claim 1 eliminates the overly restrictive limitation and overcomes the aforementioned defects.

13) In claim 1, in column 6, lines 10 through 12 of the original patent recite:

said grains are located in a range of 0.5 mm to 3.0 mm from an end portion of said front tip.

This description of the range of the elastic body tip on which the grains are located is not in agreement with Figure 1c of the patent which shows the grains located in a range of 1 mm to 2 mm from the end portion of the tip. However, under 37 CFR §1.83(a), the drawings must show every feature of the invention specified in the claims. Therefore, the grains located in a range of 0.5 mm to 3.0 mm from the end portion of the tip must be shown in the drawings or this feature of the invention must be cancelled from claim 1. Applicant seeks by this reissue application to amend claim 1 removing the range in which the grains are located on the tip in order to bring claim 1 into compliance with the requirements of 37 CFR §1.83(a).

With respect to the remainder of the prior art references cited during the prosecution of the original patent, none pertain to or read on amended claim 1 of this reissue application. The U.S. patent of Takahashi et al. (U.S. Pat. No. 5,735,793) pertains to an endoscope having a mechanism for coupling a flexible tube. This reference was relied on in the examination of the original patent for the teaching of using a silicone based adhesive to bond silicone rubber to an end face of the endoscope. It is respectfully submitted that the Takahashi reference is not pertinent to applicant's invention as recited in amended claim 1 of this reissue application. The U.S. patent of Calhoun (U.S. Pat. No. 5,437,754) was relied on in the examination of the original patent for the teaching of a preferred size of diamond particles. However, there is no suggestion in Calhoun to create a membrane eraser as recited by applicant's claim 1 in this reissue application. During the prosecution in the original patent, the U.S. patent of Morcher, et al. (U.S. Pat. No. 4,285,072) was relied upon for the teaching of using titanium. However, Morcher, et al. describes use of titanium as a support member for holding a lens in a patient's eye during an intraocular lens implant operation. The Morcher disclosure does not suggest or teach constructing a surgical tool as recited in applicant's claim 1 in this reissue application. Therefore, Applicant's claim 1 recites novel subject matter in view of the disclosure of Morcher.

In summary, the limitation in claim 1 of the patent pertaining to the plurality of hard, inorganic fine-grains where the grains are located in a range of 0.5 mm to 3.0 mm of an end portion of the tip is not required to distinguish applicant's invention from any of the prior art references of record. Additionally, in the record of the prosecution of the original patent, the Examiner provides no indication of which limitation added in amended claim 1 distinguished the invention from the prior art reference. It is

respectfully submitted that the amended claim 1 and the newly introduced independent claims contain limitations which distinguish applicant's invention from the prior art references of record. Moreover, amended claim 1 and the newly introduced independent claims contain limitations which narrow the scope of the applicant's invention from that recited in the claims of the original patent application.

During the assignment negotiations between the assignee of the original patent, Inami & Co., Ltd., and the current assignee, Synergetics, Inc., in September 1999, the above-referenced errors were discovered and the applicants, assignees and attorneys appreciated for the first time the errors and limitations as previously described.

Each of the above-identified defects occurred due to errors, which arose during the prosecution of the original patent. Specifically, applicant, assignee and their attorneys did not notice or appreciate during the prosecution of the original patent that the previously discussed misinterpretations or indefiniteness could occur. Thus, none of these parties recognized during the prosecution of the original application that the specification was defective or that the patentee had a right to claim more than he claimed in the patent.

The aforementioned errors arose without any deceptive intention on the part of the applicant, the inventors, the assignee of the original patent, or their legal representatives.

REVOCATION OF EXISTING POWER OF ATTORNEY

The undersigned representative of the Applicant hereby revokes all powers of attorney previously given and

NEW POWER OF ATTORNEY

hereby appoints John M. Howell, (25,261); Richard E. Haferkamp (29,072); Kenneth Solomon (31,427); Joseph M. Rolnicki (32,653); Alan H. Norman (32,285); Anthony G. Simon (40,813); Thomas A. Polcyn (41,256); Jeffrey H. Urian (46,232); Clyde L. Smith (46,292); Elie H. Gendloff (44,704); David B. Jinkins (46,805); and Daniel S. Kasten (45,363), constituting the firm of Howell & Haferkamp, L.C., 7733 Forsyth Blvd. Suite 1400, St. Louis, Missouri 63105, all members of the Bar of the State of Missouri, to prosecute and transact all business in the Patent and Trademark Office connected therewith.

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DECLARATION BY THE INVENTORS

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor:

Yasuo Tano

Inventor's signature

Date

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of third joint inventor:

Masato Ooji,

Inventor's signature

Date

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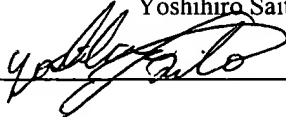
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Full name of fourth joint inventor

Yoshihiro Saitou

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of fifth joint inventor:

Park In Won

Inventor's signature



Date 11-01-00

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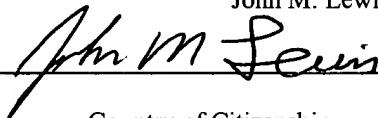
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Full name of sixth joint inventor

John M. Lewis

Inventor's signature



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